

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 33. (canceled)

34. (new) A database management method for managing data in a database having a plurality of data areas of a storage in a data management system, comprising the steps of:

 adding in each of said plurality of data areas bookmark information, said bookmark information including status information of an empty status of data in each data area;

 reading, in response to a request for storing data in a data area, said status information thereby to decide whether said data can be stored in said data area, and when said status does indicate an empty status, storing said data in said data area and storing time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

 providing, in response to a retrieval request for data stored between a time period in said database, data from a data area when said time information of said bookmark information is determined to be within said time period after reading said bookmark information.

35. (new) A database management method for managing data in a database having a plurality of data areas of a storage in a data management system, comprising the steps of:

 adding in each of said plurality of data areas bookmark information, said bookmark information including status information of an empty status of data in each data area;

 reading, in response to a request for storing data in a data area, said status information thereby to decide whether said data can be stored in said data area, and when said status does indicate empty status, storing said data in said data area and storing time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

 setting, in response to a request for deletion of data stored between a time period in said database, said status information to indicate that said data area is empty when said time information of said bookmark information is determined to be within said time period after reading said bookmark information.

36. (new) A database management system for managing data in a database, comprising:

 a storage being in an area of said database and having a plurality of data areas;

means for adding in each of said plurality of data areas bookmark information, said bookmark information including status information of an empty status of data in each data area;

means for reading, in response to a request for storing data in a data area, said status information thereby to decide whether said data can be stored in said data area, and when said status does indicate empty status, storing said data in said data area and storing time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

means for providing, in response to a retrieval request for data stored between a time period in said database, data from a data area when said time information of said bookmark information is determined to be within said time period after reading said bookmark information.

37. A database management system for managing data in a database, comprising:

a storage being in an area of said database and having a plurality of data areas;

means for adding in each of said plurality of data areas bookmark information, said bookmark information including status information of an empty status of data in each data area;

means for reading, in response to a request for storing data in a data area, said status information thereby to decide whether said data can be stored in said

data area, and when said status does indicate empty status, storing said data in said data area and storing time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

means for setting, in response to a request for deletion of data stored between a time period in said database, said status information to indicate that said data area is empty when said time information of said bookmark information is determined to be within said time period after reading said bookmark information.